

REPORT ON THE URBAN PLANNING PROJECTS WORKSHOP, TERRITORY AND LANDSCAPE 2025-2026

1. INTRODUCTION

The Workshop on Urbanism, Territory, and Landscape Projects (TPUTP) is part of the formal education courses and subjects of the Degree in Fundamentals of Architecture at the Polytechnic University of Valencia (UPV). In this instance, it is linked to the LOLA project and HORTALAB through its academic environment objectives.

The activities of the LOLA project were developed in collaboration with the community of the Local Laboratory of the L'Horta Sud Landscape System (HORTALAB), which is made up of representatives from local communities, associations, and administrations.

The scope of the study focused on the landscape system of the municipalities of Picanya, Païporta, and Benetússer, taking the Rambla del Poyo as the main axis. This is a key element whose natural dynamics define the morphology, opportunities, and risks in the working environment.

COURSE INFORMATION:

- Degree: Degree in Fundamentals of Architecture
- Center: E.T.S. of Architecture (Polytechnic University of Valencia)
- Credits: 4.5 (115 hours)
- Classes: 03/02/2026 - 26/05/2026 (18:00-21:00)
- Professors: Juanjo Galán Vivas and Natalia García Hernández

2. OBJETIVES

Within the framework of the LOLA project, the TPUTP must provide participating students, professors, and citizens with a methodological framework to analyze the landscape as a complex and dynamic system.

The course aims to develop key competencies such as systemic thinking, collaborative work, adaptive design, and prospective thinking.

Students are required to reflect on the territory through conceptual landscape models that foster a systemic and interrelational approach across different historical and spatial contexts. Following this, they must consider the current conditions that define these models and the vectors of future change.

Given the characteristics of the LOLA project, where (1) the acquisition of systemic thinking skills must be directed at both students and local communities, and (2) the landscape must be studied and planned with and for the local population, the course featured a strong participatory component.

In fact, this component meant that 33% of the tutored working time (5 out of the 15 course sessions) was dedicated to workshops in which students, teachers, and citizens jointly analyzed, imagined, and designed the landscape of L'Horta Sud and certain strategic spaces within it.

3. METHODOLOGY

The workshop was structured into three sequential tasks that addressed reflection on the landscape as a system, the current landscape and its components, and the vectors of future change and improvement. For this, the following assignments were proposed to the students:

1. Creation of conceptual landscape models showing the main elements and subsystems present in the landscape, their interrelations and dependencies, and the endogenous or exogenous vectors that cause the evolution or stabilization of the landscape. The specific landscape of each place and historical moment would thus emerge as a materialization of the corresponding model, establishing a biunivocal relationship between the model and the landscape.
2. Elaboration of graphic and visual representations of the conceptual models with representative axonometric illustrations of the identified elements and relationships. At this point, students could create manual axonometrics and/or guide artificial intelligence to generate the desired visualizations.
3. Development of the conceptual models and their axonometrics for past and present landscape conditions.
4. Following the definition of future scenarios, development of the conceptual models and their axonometrics for the landscape with a 2050 horizon.
5. Designing participatory workshops with local citizens so they could assist and validate the work indicated in the previous points.

During the course, students worked in teams defined according to interdisciplinary and internationality criteria. Given the significant presence of Erasmus students, an effort was made to ensure that each of the five teams included a UPV student familiar with the environment and available open cartographies.

Regarding the participatory workshops, local residents and representatives were distributed among the different student teams, aiming for a diversity of ages, genders, origins, and professional profiles. It is worth noting that throughout the course, connections were established between the student teams and the local population, so that by the final workshops, residents directly sought out "their" students and vice versa.

Students:

- **Team 1:** Elena Auni3n S3nchez, Antonio Porras Delgado, Lucie Gabriele, Lisa Leghissa
- **Team 2:** Juan Miguel Pastor Barcel3, Herberth Leonardo Yanagada Silva, Lidia Giulia Vuoto,
- Pablo Cesar Gonz3lez Ch3vez, Jo3o Pedro Lobo
- **Team 3:** Blanca Sales Mech3, Sa3l Lopez Barrio, Leonardo Bruni
- **Team 4:** Alan Alexis Almeida Veliz, Tritz Cl3mence, Diego Mart3nez Hibert, Raquel Navarro
- Garc3a, Fayrouz Senhaji

- Team 5: Elisa Noor Alcobilla Hardasmal, Alessandro Gobbo, Vincent Larde, Daiana Micaela
- Loyola Carpio, Garance Timbal Duclaux de Martin

Workshop Participants:

Rafael Albiol (4), M.^a Carmen Soriano (4), José Valls (4), Alba Bodelón Gualda (4), Nerea Santainés / Satainés (3), Amagoia Labarga (3), Concha Cases Paya (3), Nicolás Moliner / Molmar (3), Livia Guillem (3), Rafael González (3), Carmen Elvira Alborch (3), Dolores Aguado (3), Enrique Andrés Santainés (2), Yacine Hassen Bouderbail (2), Desiré Medina Maciás (2), Luz Arango (2), Vicente Pons (2), Empar Puchades (2), Javier González Cardona (2), Patricio González (2), Ángela Aroca (2), Julio Martínez Tolosa (1), M.^a Amparo Zaragoza San José (1), Esther Sánchez / Sancehz (1), María Rasal (1), Ana Esquembre (1), Montse Paya (1), Domingo Mariano (1), Rosa Romero (1), Amparo Muñoz (1), Ignacio Salavert (1), Melanie Navarro (1), David Benítez (1), María Sasenva (1), Vera Lucía (1), Pablo Herández (1), Salvador Trujillo (1), Carmen Rodrigo (1)

4. RESULTS (DEVELOPMENT)

DIDACTIC UNIT 1: THE LANDSCAPE AS A COMPLEX SYSTEM - MODEL AND HISTORICAL EVOLUTION

In Task 1a, teams were required to develop a conceptual and generic model of the landscape, illustrating subsystems, components, relationships, and vectors of change. Then, in Task 1b, these models had to be adjusted to the Rambla del Poyo landscape across the following periods (2000 BC, 1400 AD, 1950 AD) and visualized in axonometrics at different representative points of the landscape.

These models were shared and adjusted in a workshop with the HORTALAB community, where input was gathered regarding the models and the representations of historical landscapes.

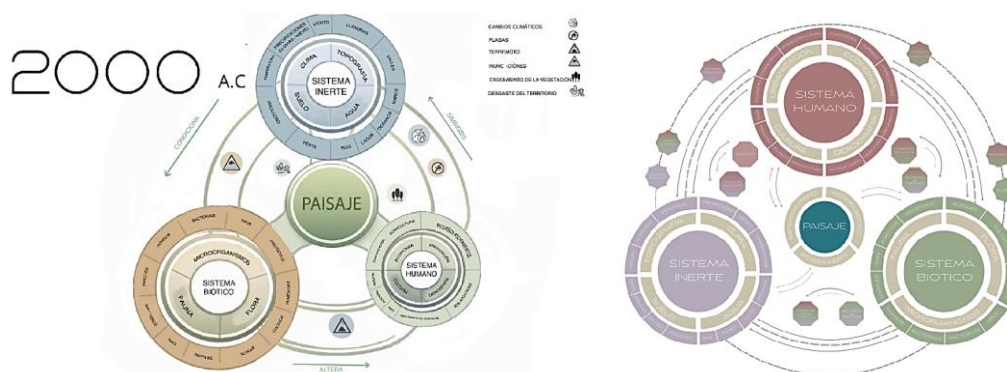


Figure 1: Conceptual landscape models. Landscape systems and their interrelations. (Left: Team 1, Right: Team 2)

The methodology gave highly diverse results regarding the conceptual landscape models generated. The students successfully identified the elements and interrelations, and to a lesser degree, the endogenous and exogenous vectors of change.

All teams chose to use three main subsystems to approach the landscape: the inert environment, the biotic environment, and the human subsystem. However, the ways of graphically representing

the conceptual models and expressing the relationships between subsystems and components varied considerably from one group to another. (see figures 1,2 y 3).

These models showed a marked evolution throughout history, as human beings transformed an initially ecological system into a socio-ecological system where new elements emerged (buildings, settlements, infrastructures, plot divisions), along with social, political, or cultural processes, uses, and structures.

MODELO DEL PAISAJE - 2000 AC

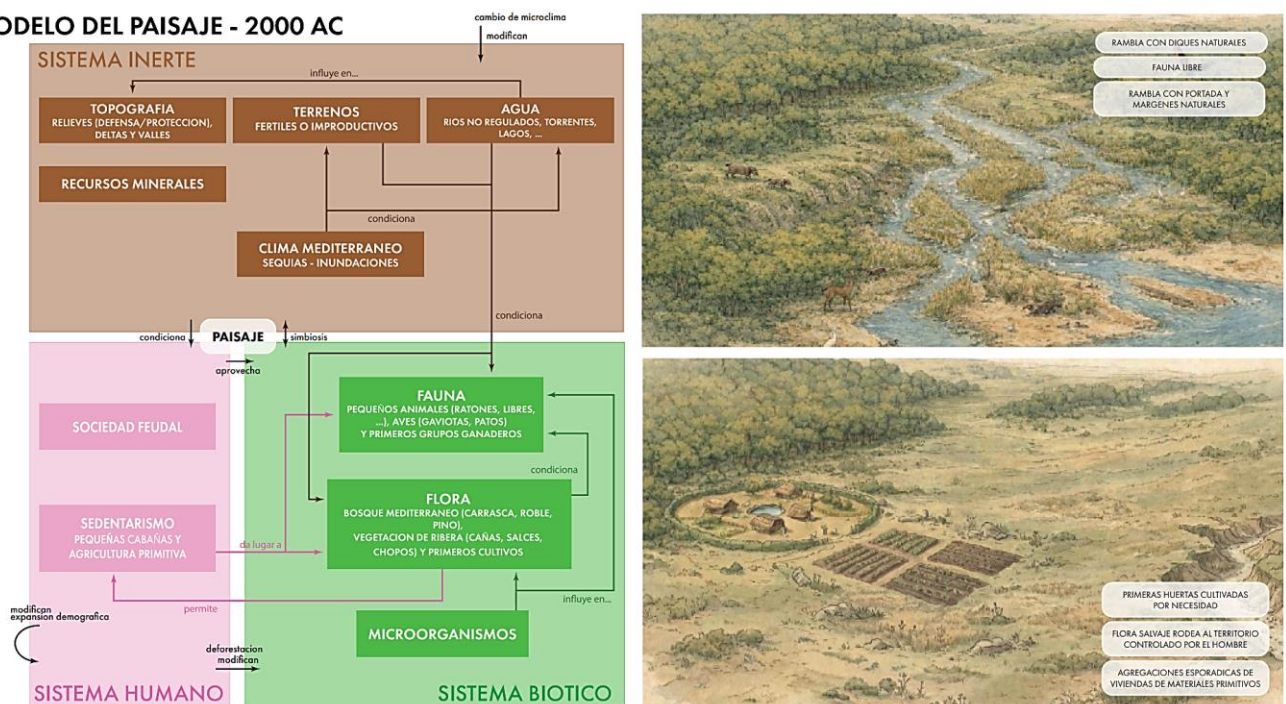


Figure 2: Model and illustrative axonometrics of the landscape models of L'Horta Sud 4000 years ago (Team 3)

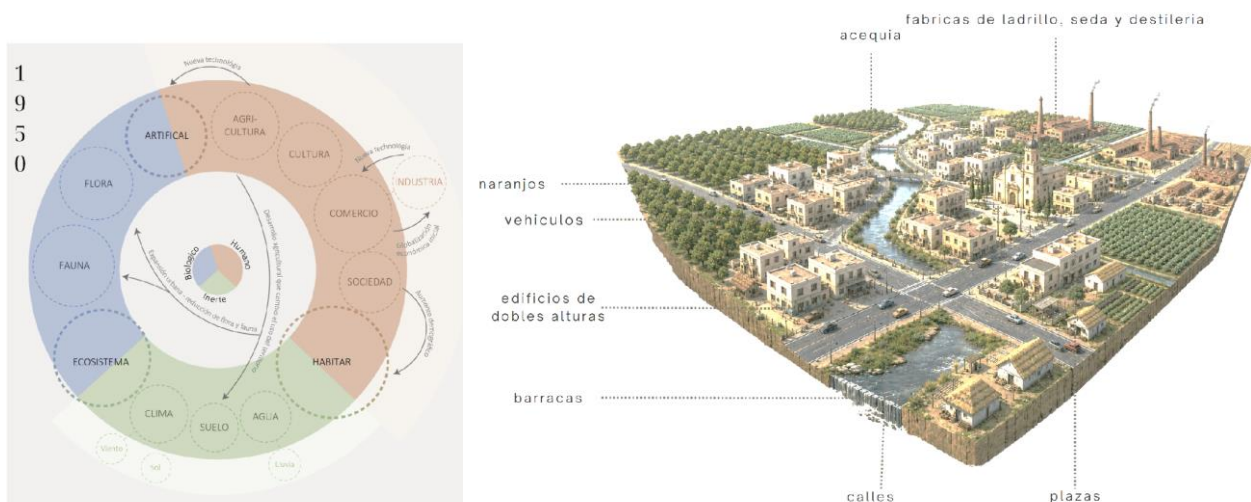


Figure 3: Model and illustrative axonometrics of the landscape models of L'Horta Sud in 1950 (Team 5)

The axonometries illustrating the conceptual models managed to represent part of the landscape complexity along with the heterogeneity of its components. They demonstrated effective synthesis capacity and identified the necessary key elements for the axonometries to show coherent temporal evolution, although some interrelations or vectors of change gathered in the models were not represented or commented on in the visualizations.

The participatory workshop associated with Didactic Unit 1 successfully involved residents and technicians in the development of Task 1. To achieve this, each student team designed the way they wanted to interact with the attendees, first explaining the preliminary models and axonometries, and then adjusting them based on their input and suggestions. In this way, through the students themselves, the educational and informative work was extended to the representatives of the local community (see [Figure 4](#)).

- **Date:** 24.02.2026 (18:30-20:45) - **Location:** Nou Espai Building (Benetússer)
- **Attendees:** 22 Students and teachers - 23 members of the local community



Figure 4: Participatory workshop #1: Teams of students, citizens, and local technicians (various teams). Photos: Juanjo Galán Vivas

DIDACTIC UNIT 2: THE CURRENT LANDSCAPE - MODELS AND DIAGNOSIS

In this second stage of the course, as part of Task 2, students adapted their conceptual landscape models to the current reality of the Rambla del Poyo, including elements, relationships, and factors that had not been represented in the initial models. In a second phase of the same task, the teams created landscape diagnosis plans and developed axonometries that expressed the

adaptations of the models and their subsystems to the current reality in various urban and rural contexts. (see Figure 5). Additionally, reflections on the opportunities and problems of the current landscape were systematized into SWOT (DAFO) matrices that fed back into the models and axonometrics, which in turn allowed for the generation of agendas to envision future landscapes in Task 3. (see Figures 6 y 7).



Figure 5: Task 2: Conceptual models and visualizations of the current landscape (Team 2)

MODELO DEL PAISAJE - 2026

PRO

SOCIEDAD Y COMUNIDAD LOCAL

- FACILIDAD PARA SOCIALIZAR
- VISION COMUNITARIA
- PERSONALIDAD PROPIA DE LA CIUDAD

PARTICULARIDADES DEL TERRITORIO

- ALBUFERA
- PROXIMIDAD CON LA NATURALEZA
- CLIMA MEDITERRANEO

PLANEAMIENTO LOCAL - ESPACIOS VERDES

CONTRA

- ENVEJECIMIENTO POBLACIONAL
- CONCENTRACION DEMOGRAFICA
- FALTA DE OPORTUNIDADES

PARTICULARIDADES DEL TERRITORIO

- CONTAMINACION
- INUNDACIONES
- CAMBIO CLIMATICO

- CIUDADES DORMITORIO
- NUCLEOS MUY PROXIMOS
- FALTA DE PLANEAMIENTO TERRITORIAL



Figure 6: Analysis of problems and opportunities in the current landscape of L'Horta Sud (Team 3)



Figure 7: Conceptual models and SWOT matrices for the current landscape (Teams 1, 2, and 4).

Once again, an interactive workshop with representatives of the local community was held, during which the students adapted their models and improved their preliminary landscape diagnosis. The second participatory workshop succeeded in connecting the teams' reflections with the experiences of residents and authorities, who contributed a subjective perspective from their proximity and an objective perspective based on the functionality of the systems that make up their daily landscapes. Overall, the students demonstrated the adaptive capacity of their conceptual models in the face of the current reality of the analyzed landscape, and the illustrations presented the new systems that intervene in and modify the territory today.

- **Date:** 31.03.2026 (18:30-20:45) - **Location:** Nou Espai Building (Benetússer)
- **Attendees:** 18 Students and teachers - 22 community members



Figure 8: Workshop #2. Current landscape models and diagnosis. Photos: Juanjo Galán Vivas

DIDACTIC UNIT 3: THE FUTURE LANDSCAPE - MODELS AND PROPOSALS

The third block of the subject was oriented toward defining future scenarios and proposals for the evolution of the landscape. In a first phase (Phase 3a), the teams adjusted their landscape models to different future scenarios. This approach allowed them to incorporate a prospective vision of the landscape into the methodology of the previous tasks.

In a second phase (Phase 3b), each team chose one of their scenarios and developed concrete proposals for the proper evolution of the landscape in that scenario, elaborating the necessary technical and graphic supporting materials.

These processes were accompanied by two interactive workshops with the HORTALAB community. Workshop 3a aimed to define possible scenarios and deduce the likely evolution of the landscape. Workshop 3b, on the other hand, was conceived as a co-design exercise with the local population regarding specific proposals in the area previously chosen by each team.

The results of the third module of the course demonstrated a better understanding of landscape evolution, its current components, its vectors of change, and its future scenarios, thus completing a comprehensive view of the landscape as a complex system. This holistic perspective was reflected in graphic pieces that successfully referenced previous achievements and the necessary adjustments to communicate their proposals.

PHASE 3.a. FUTURE SCENARIOS

Defining different key themes or vectors to imagine the future landscape, along with the different directions in which these vectors could evolve, facilitated the definition of alternative scenarios

that emerged as a coherent or plausible combination of the alternatives offered by each vector (ver Figura 9)



Figure 9: Tasks 3.a. Vectors of change in the current landscape and two possible future scenarios (Team 3)

The subsequent incorporation of vectors of change into the conceptual landscape models endowed them with greater complexity and reinforced their prospective function. Corresponding to current dilemmas and alternatives, the alternative models of the future landscape captured qualitatively different relationships between the social and the natural environment, which in extreme cases materialized into utopian and dystopian scenarios. (Figures 10 y 11)

Thus, the dystopian models and axonometrics not only addressed natural disaster scenarios but also showed the consequences of the spatial drift of overbuilt, deregulated, or mono-functional landscapes. Alternatively, more positive scenarios also highlighted the social, territorial, and economic commitments they demand, outlining a call to action for all stakeholders involved in the active construction and management of the landscape.

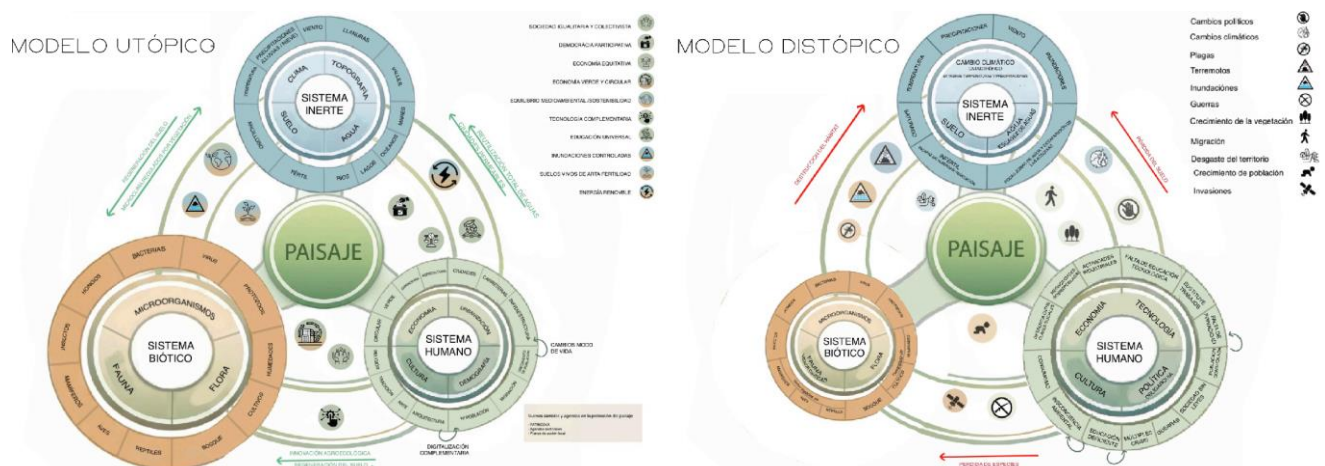


Figure 10: Task 3.a. Representative models of a utopian and dystopian scenario for the future landscape (Team 1)

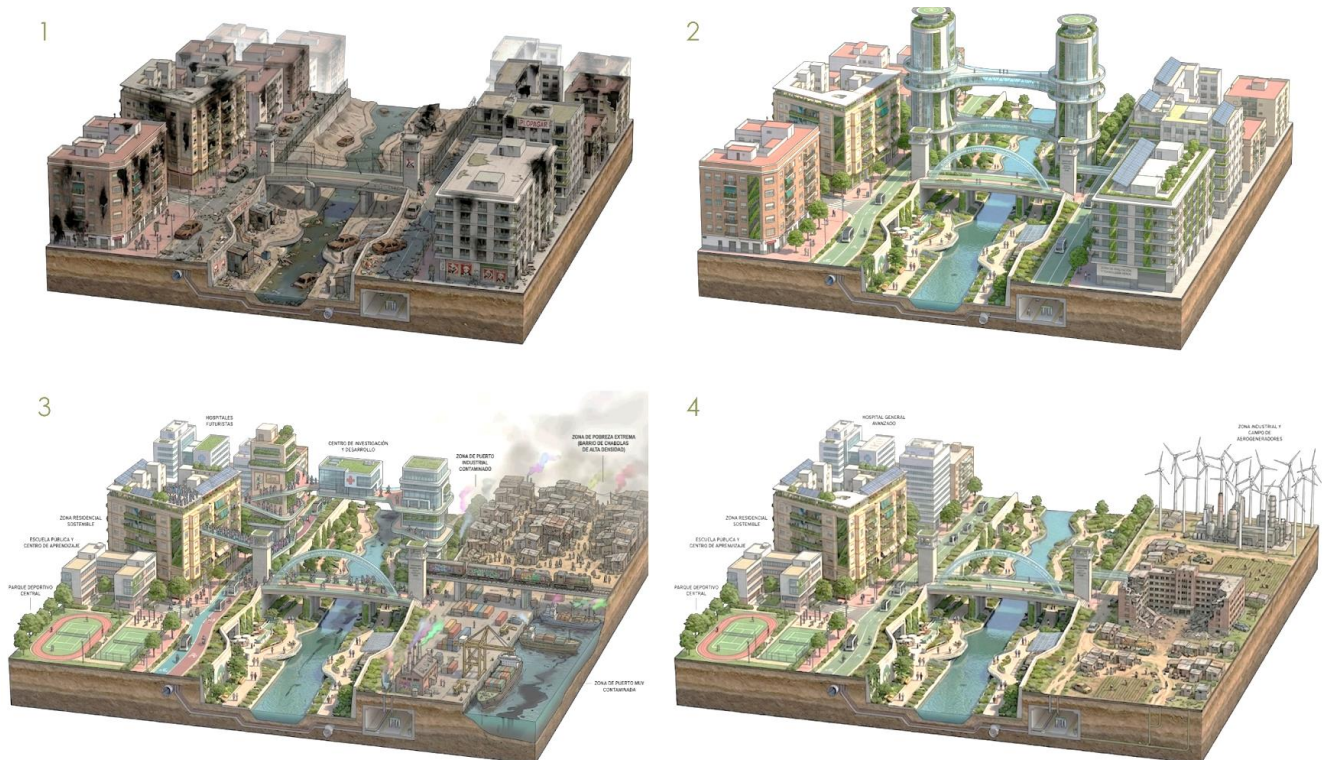


Figure 11: Task 3.a. Visualization of different future scenarios (Team 2).

In general, defining landscape scenarios consistent with the conceptual models developed succeeded in activating the students' ability to abstract, diagnose, and propose future scenarios based on current dynamics and a complex understanding of the elements interacting within the landscape.

The third participatory workshop of the course allowed students to share and adjust the future scenarios for L'Horta Sud with members of the local community. As in previous workshops, the students' mission was twofold: to share what they had learned about scenario generation with the local population, and to adjust their work based on the knowledge and ideas of the community. At this point, it is worth highlighting how innovative it was for the participants to be able to imagine what the landscape of L'Horta Sud could be like in the medium or long term. This situation allowed them, freed from immediate, particular, or personal constraints, to approach the exercise in a more integral and collective manner. (see [Figure 12](#)).

- **Date:** 28.04.2026 (18:30-20:45) - **Location:** Nou Espai Building (Benetússer)
- **Attendees:** 21 Students and teachers – 18 community members



Figure 12: Workshop 3a. Vectors of change. Future scenarios. Photos: Juanjo Galán Vivas

PHASE 3.b. PROPOSALS FOR STRATEGIC AREAS

Based on the scenarios generated in Task 3a, the teams selected a specific area that they considered especially strategic or relevant to the evolution of the L'Horta Sud landscape. Subsequently, objectives and intervention or management strategies were defined for these areas, materializing in the graphic elements each team deemed necessary to communicate their proposal (floor plans, diagrams, sections, perspectives, etc.).

In particular, many of the proposals were associated with different stretches of the Rambla del Poyo in the most desirable scenarios, although some groups focused on the improvement and regeneration of existing urban fabrics (Team 1), the creation of an inter-municipal park (Team 3), or the transformation of industrial zones (Team 5). (Figures 13, 14, 15, 16 y 17).



Figure 13: Task 3.b. Improvement proposals for the Rambla del Poyo and its intersection with infrastructures in Catarroja-Massanassa. (Team 1)

PROPUESTA PROYECTUAL



Figure 14: Task 3.b. Improvement proposals for the Rambla del Poyo in Paiporta. (Team 4)



Figure 15: Task 3.b. Regeneration and improvement proposals for the Orba neighborhood in Alfafar. (Team 2)



Figure 16: Task 3.b. Improvement proposal for the industrial estate located between Paiporta and Benetússer. (Team 5)



Figure 17: Task 3.b. Proposal for an inter-municipal park between Paiporta and Benetússer. (Team 3)

The participatory workshops allowed the students to work on their proposals alongside residents and local technicians, constantly evaluating the premises of the previous tasks, adapting the interventions to the identified realities, the possibilities studied, and above all, to the holistic nature of the desired landscapes. (see [Figure 18](#)).

- **Date:** 12.05.2026 (18:30-20:45) - **Location:** Nou Espai Building (Benetússer)
- **Attendees:** 18 Students and teachers - 12 community members



Figure 18: Workshop 3b. Co-design of strategic areas with members of the local communities. Photos: Juanjo Galán Vivas

FINAL PRESENTATION:

The course concluded with a public presentation by the teams to various stakeholders from administrative, academic, civil, and professional backgrounds during an exhibition on Tuesday, May 26, from 18:00 to 20:30 in the Plenary Hall of the Benetússer City Council. This event made it possible to see the evolution of the students' work, the accompanying work of the professors, and the influence of the community members who participated throughout the process. (see [Figure 19](#)).

The results of the third block of the subject showed a better understanding of the evolution of the landscape, its current components, its vectors of change, and its future scenarios, thus completing an integral vision of the landscape as a complex system. This holistic perspective was captured in graphic pieces that successfully referenced previous successes and the necessary adjustments to communicate their proposals.



Figure 19: Final exhibition of works. Benetússer City Council. Photo: Juanjo Galán Vivas

5. DISCUSSION AND CONCLUSIONS OF THE WORKSHOP + LEARNING FOR FUTURE COURSES

4.1_ On general results

- The resulting conceptual models show a deeper look by the students into the elements and interrelations present in the landscape, as well as a great capacity to promote the development of cognitive skills such as abstract, conceptual, integrative, systemic, critical, and synthetic thinking.
- The historical evolution of the models and axonometrics consolidated in students and the local population the perception of the landscape as a socio-ecological system in constant evolution, which was reflected in the breadth of action of the vectors of change identified in subsequent tasks.
- Illustrations using AI demonstrate its potential in simplifying operational work. The students satisfactorily controlled the scope of the tool. In turn, the importance of guiding or educating the AI to achieve adequately contextualized illustrations was appreciated.
- The participatory workshops evidenced the potential of collaborative and multidisciplinary work, as well as its capacity to promote the intensive development of transversal competencies.

4.2_ On the methodology used in the Workshop

- Regarding the open classroom format with strong collaboration between students and the local population, it should be noted that the frequent contacts managed to give continuity to said collaboration and establish a relationship of trust and shared interest between both groups. Essential for the success of the collaboration was the students' involvement in the autonomous and responsible preparation of their work sessions with local agents, as well as logistical organization (bus rental, availability of drawing materials, and basic catering) that allowed the limited time available (3 hours per session) to be used optimally without wasting time on travel or lack of materials. It is worth noting that the support of the local development agent from Benetússer was fundamental to guarantee a constant, diversified, and numerous presence of residents in all organized workshops, and the timing of the events (from 18:30 to 21:00) was also of great importance.
- Regarding the contents of the course and tasks, it was observed that the increasing level of complexity of the conceptual landscape models to be developed by the students (from past to present and future) allowed them to progressively incorporate and connect ideas. In this regard, it was observed that the first models focused on the physical elements of the landscape, but the diagnosis of the current situation, and especially the definition of scenarios and possible future landscapes, increased the importance given by students to processes, dynamics, and vectors of change in the landscape. The task linked to the definition of scenarios allowed for a transition from the analytical or diagnostic part of the course to the propositional part, although it was observed that most teams opted to generate extreme scenarios (utopian versus dystopian). Finally, it was appreciated that the last sub-task had limited time for its completion. However, the students' degree of motivation, their previous experience in project work, and the synthesis and decision-making capacity developed during the course, combined with an effective use of artificial intelligence, helped them develop well-elaborated and structured proposals in which evaluating their impact or utility for the global landscape system remained pending.

4.3_ On the development of capacities for systemic thinking among students and teaching staff

- The development of capacities for systemic thinking in the students and teachers through the study and planning of the landscape was notable, although a greater and foreseeable emphasis on physical elements was observed, along with adequate but unequal treatment of the relationships between these elements, and a progressive incorporation of aspects linked to transformation processes by endogenous or exogenous vectors of change. This situation was foreseeable given that the last two types of elements require a greater degree of abstraction and knowledge of the landscape on a functional level.
- The creation of conceptual landscape models proved useful to formalize and visually transmit the landscape as a complex system. One of the greatest challenges and achievements, however, was finding a graphic language with which to represent the elements, relationships, and vectors of change.
- On the other hand, the creation of axonometrics directly linked to the models developed by the students made it possible to visualize the physical elements of the landscape and, to a lesser extent, the relationships between them or intangible elements. It was, however, more difficult to represent the vectors and processes of change, although at this point, it was useful to frame the vectors of change not so much as transformation forces acting at

a specific moment but as forces explaining the change in the landscape throughout the different periods considered (2000 BC, 1400 AD, 1950, present, 2050).

- Regarding the degree of development of different forms of thinking among students and support teachers, the following can be concluded:
 - **Abstract and conceptual thinking:** strongly facilitated and enhanced by the approach to the landscape as a socio-ecological system and its formalization with a dynamic conceptual model (4/5)
 - **Integral and interdisciplinary thinking:** enhanced by the approach to the landscape as an integrated system comprised of different subsystems associated with different disciplines or types of knowledge (4/5)
 - **Synthetic thinking:** favored by the synthesis required to graphically represent the landscape as a conceptual model and with highly representative axonometrics (4/5)
 - **Propositional thinking aimed at problem-solving:** developed in the diagnostic phase of the current landscape (Task 2) and in the development of proposals for one of the defined scenarios (4/5)
 - **Systemic thinking identifying changing relationships between elements and landscape actors:** strongly facilitated and enhanced through the preparation of conceptual models, where the relationship between landscape elements and their dynamics and vectors of change could nonetheless be reinforced (4/5)
- Regarding the degree of understanding of the fundamental properties of complex systems among students and support teaching staff, the following can be concluded:
 - **Non-linearity cause-effect:** Partially developed when looking for relationships between landscape elements and attempting to explain how changes in certain landscape elements or processes might impact the overall system. However, a detailed study of these relationships was not carried out (3/5)
 - **Path dependence:** This property was addressed indirectly by considering the evolution of the landscape as a contingent phenomenon determined by specific situations that occur along its evolutionary path. The study of endogenous and exogenous vectors of change and, especially, the consideration of different possible future scenarios contributed to the understanding of this property (3/5)
 - **Order and spontaneous events/emergences:** The appearance of spontaneous (unforeseeable) orders or events characterizing complex systems was not specifically addressed in the course, but just like with the previous property ("path dependence"), students were able to perceive it upon discovering the unpredictability of some of the logics operating in the landscape (2/5)
 - **Feedback and self-learning:** The existence of feedback loops that allow for self-regulation and spontaneous adjustment of complex systems was not directly addressed in the course, although it could have been discussed to explain the evolution of landscapes and the mechanisms that can be set in motion to avoid collapse scenarios (e.g., the dystopian scenarios proposed by some teams) (1/5)
 - **Adaptation:** See the two previous points (3/5)

4.4_ On the development of capacities for systemic thinking among the local population

- The local population participated significantly but indirectly in the production of the course results. Therefore, even though they were constantly informed by the students of the objectives of each task and participated in the adjustment and validation of the various deliverables, their degree of assimilation of the course contents and the development of capacities for systemic thinking naturally had to be lower. However, it is worth noting that regarding this last point, significant differences were observed among the participants depending on the frequency with which they attended the workshops and the role they adopted in them.
- Regarding the degree of development of different forms of thinking among the local population that collaborated in the course, clear evidence or evaluations are unavailable, but an approximate estimate is provided below:
 - Abstract and conceptual thinking: (3/5)
 - Integral and interdisciplinary thinking: (3/5)
 - Synthetic thinking: (2/5)
 - Propositional thinking aimed at problem-solving: (2/5)
 - Systemic thinking identifying relationships between elements and landscape actors: (3/5)
- Regarding the degree of understanding of the fundamental properties of complex systems among the local population that collaborated in the course, clear evidence or evaluations are unavailable, but an approximate estimate is provided below:
 - Non-linearity cause-effect: (2/5)
 - Path dependence: Not worked on during the workshop (1/5)
 - Order and spontaneous events/emergences: Not worked on during the workshop (1/5)
 - Feedback and self-learning: Not worked on during the workshop (1/5)
 - Adaptation: Not worked on during the workshop (1/5)